

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
14 August 2003 (14.08.2003)

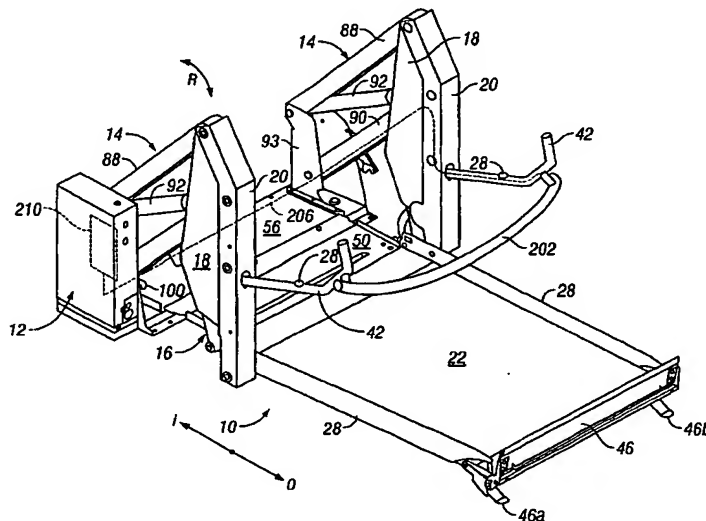
PCT

(10) International Publication Number
WO 03/065960 A3

- (51) International Patent Classification⁷: B66B 9/20
- (21) International Application Number: PCT/US03/00458
- (22) International Filing Date: 8 January 2003 (08.01.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
60/355,175 7 February 2002 (07.02.2002) US
60/361,989 5 March 2002 (05.03.2002) US
- (71) Applicant (for all designated States except US): **THE BRAUN CORPORATION** [US/US]; 631 West 11th Street, P.O. Box 310, Winamac, IN 46996 (US).
- (71) Applicants and
(72) Inventors: **KASTEN, Michael, E., Jr.** [US/US]; 702 N. Hathaway Street, Winamac, IN 46996 (US). **THORNBURG, Kenneth, E.** [US/US]; 16450 15b Road, Culver, IN 46511 (US). **HERMANSON, Jeffrey, J.** [US/US]; 45 Venetian Village, Culver, IN 46511 (US). **HEIGL, Keith, D.** [US/US]; 6518 W. 300 South, Winamac, IN 46996 (US). **PIERROU, James, R.** [US/US]; 9769 West State Road 14, Winamac, In 46996 (US).
- (74) Agent: **HOFFMAN, Perry, J.**; Michael Best & Friedrich, LLC, 401 N. Michigan Avenue, Suite 1900, Chicago, IL 60615 (US).
- (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:**
— with international search report
— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

[Continued on next page]

(54) Title: SAFETY BELT SYSTEM FOR WHEELCHAIR LIFTS



(57) Abstract: A vehicle access system for moving a passenger between the vehicle and ground. Some embodiments have an electrical system, a motive source (12) coupled to the electrical system, an arm (14) coupled to the motive source (12), a platform (22) coupled to the arm (14), and a safety restraint system (202) coupled to the electrical system and the platform (22). The vehicle access system has at least a vehicle access position and a ground access position, wherein the passenger can safely access the platform (22) at either access position. The platform (22) is unable to move from either access position until the safety restraint system (202) is in place. Once operation of the access system has begun, it can continue to operate and move the passenger to one of the access positions even if the safety restraint system (202) is subsequently removed.

WO 03/065960 A3



(88) Date of publication of the international search report:
4 December 2003

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

10/50067

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/00458

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : B66B 9/20

US CL : 414/546

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
U.S. : 414/546,540,556

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|--|-----------------------------------|
| X | US 5,373,915 A (TREMBLAY) 20 December 1994 (20.12.1994), entire document. | 1,4,5,7 and 24 |
| --- | | |
| Y | | 2,8,9,12,13,15,17,18 and 20-22 |
| Y | US 6,042,327 A (DELEO et al.) 28 March 2000 (28.03.2000) entire document. | 2,3 and 16 |
| Y | US 6,238,169 B1 (DUPUY et al.) 29 May 2001 (29.05.2001), entire document. | 6 and 19 |
| Y | US 6,077,025 A (BUDD et al.) 20 June 2000 (20.06.2000), entire document. | 10,11,14,23 |

☐ Further documents are listed in the continuation of Box C.

See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T"

later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X"

document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y"

document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&"

document member of the same patent family

Date of the actual completion of the international search

07 April 2003 (07.04.2003)

Date of mailing of the international search report

15 OCT 2003

Name and mailing address of the ISA/US

Commissioner of Patents and Trademarks
Box PCT
Washington, D.C. 20231

Facsimile No. (703)305-3230

Authorized officer

Eileen D. Lillis

Telephone No. 703-308-1113